

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

GARRITY POWER SERVICES LLC,

Plaintiff,

v.

SAMSUNG ELECTRONICS CO., LTD.
and SAMSUNG ELECTRONICS
AMERICA, INC.,

Defendants.

§
§
§
§
§
§
§
§
§
§
§

Case No. 2:20-cv-00269-JRG

CLAIM CONSTRUCTION MEMORANDUM AND ORDER

On July 28, 2021, the Court held a hearing to determine the proper construction of disputed terms in United States Patent No. 9,906,067. Before the Court is the Opening Claim Construction Brief (Dkt. No. 67) filed by Plaintiff Garrity Power Services LLC (“Plaintiff” or “Garrity”), the Responsive Claim Construction Brief (Dkt. No. 73) filed by Defendant Samsung Electronics Co. Ltd. and Samsung Electronics America, Inc. (“Defendants” or “Samsung”), and Plaintiff’s reply (Dkt. No. 75). Further before the Court are the parties’ joint claim construction charts filed pursuant to Local Patent Rule (“P.R.”) 4-3 (Dkt. No. 61-1) and P.R. 4-5(d) (Dkt. No. 81-1) and supplemental charts (Dkt. No. 91-1; Dkt. No. 92-1). Having reviewed the arguments made by the parties at the hearing and in their claim construction briefing, having considered the intrinsic evidence, and having made subsidiary factual findings about the extrinsic evidence, the Court hereby issues this Claim Construction Memorandum and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (en banc); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015).

Also before the Court is the briefing on Defendants' Motion to Strike Portions of Dr. Ricketts' Declaration in Support of Plaintiff's Claim Constructions (Dkt. Nos. 65, 72, 74, 80).

Table of Contents

I. BACKGROUND.....	3
II. LEGAL PRINCIPLES	4
III. AGREED TERMS.....	7
IV. DISPUTED TERMS.....	7
1. “magnetic core piecepart”	8
2. “encircling at least a portion”	20
3. “burst mode of operation”	29
4. “wherein said power train is configured to enable said battery to be successively charged and discharged without changing a duty cycle of said first switching circuit and said second switching circuit”	30
5. “a wireless battery interface including a wireless battery interface magnetic core piecepart”	34
V. DEFENDANTS’ MOTION TO STRIKE	34
VI. CONCLUSION	35
APPENDIX A	36

I. BACKGROUND

Plaintiff alleges infringement of United States Patent No. 9,906,067 (“the ’067 Patent”).

The ’067 Patent, titled “Apparatus, System and Method to Wirelessly Charge/Discharge a Battery,” issued on February 27, 2018, and bears a filing date of June 30, 2015. The Abstract of the ’067 Patent states:

An apparatus, system and method to wirelessly charge and/or discharge a battery. In one embodiment, the apparatus includes a removable first magnetic core piecepart having a surrounding first metallic coil and configured to be coupled to and aligned with a second magnetic core piecepart having a surrounding second metallic coil to form a transformer. The apparatus also includes a battery metalically coupled to the first metallic coil and configured to be charged and discharged through an electrically isolating path of the transformer.

Plaintiff asserts Claims 1, 7–12, and 15–20 of the ’067 Patent. Dkt. No. 67 at 4.

Shortly before the start of the July 28, 2021 hearing, the Court provided the parties with preliminary constructions with the aim of focusing the parties' arguments and facilitating discussion. Those preliminary constructions are noted below within the discussion for each term.

II. LEGAL PRINCIPLES

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips*, 415 F.3d at 1312 (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970–71 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). "In some cases, however, the district court will need to look beyond the patent's intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period." *Teva*, 135 S. Ct. at 841 (citation omitted). "In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the 'evidentiary underpinnings' of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal." *Id.* (citing 517 U.S. 370).

To determine the meaning of the claims, courts start by considering the intrinsic evidence. *See Phillips*, 415 F.3d at 1313; *see also C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. *See Phillips*, 415 F.3d at 1314; *C.R. Bard*, 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of

ordinary skill in the art at the time of the invention in the context of the entire patent. *Phillips*, 415 F.3d at 1312–13; accord *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term’s context in the asserted claim can be very instructive. *Id.* Other asserted or unasserted claims can aid in determining the claim’s meaning because claim terms are typically used consistently throughout the patent. *Id.* Differences among the claim terms can also assist in understanding a term’s meaning. *Id.* For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id.* at 1314–15.

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 979). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); accord *Teleflex, Inc. v. Ficos N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor’s lexicography governs. *Id.* The specification may also resolve the meaning of ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex*, 299 F.3d at 1325. But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the

specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); accord *Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc. v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent.”). “[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.” *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985).

Although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (citations and internal quotation marks omitted). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

III. AGREED TERMS

The parties reached agreement on constructions as stated in their May 11, 2021 Joint P.R. 4-3 Claim Construction and Prehearing Statement (Dkt. No. 61 at 1–2) and their July 26, 2021 Supplemental Joint P.R. 4-3 Claim Construction and Prehearing Statement (Dkt. No. 91 at 2–3). Those agreements are set forth in Appendix A to the present Claim Construction Memorandum and Order.

IV. DISPUTED TERMS

The parties present somewhat different characterizations of the level of ordinary skill in the art.

“The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation.” *Phillips*, 415 F.3d at 1313; *see Rambus Inc. v. Hynix Semiconductor Inc.*, 569 F. Supp. 2d 946, 982 n.15 (N.D. Cal. 2008) (Whyte, J.) (resolving dispute about the level or ordinary skill in the art).

“Factors that may be considered in determining [the] level of ordinary skill in the art include: (1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Daiichi Sankyo Co., Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007) (citation and quotation omitted).

Plaintiff proposes: “[a] person having ordinary skill in the art (“POSA”) at the time of invention of the ’067 patent (around 2015) would have had a bachelor’s degree in electrical engineering or a similar field, and at least of two years of professional experience, or its equivalent, in *wireless* power transfer design.” Dkt. No. 67 at 5.

Defendants propose: “A person of ordinary skill in the art (‘POSA’) around the time of the purported invention would have had at least a bachelor-level degree in electrical engineering, physics, computer science, or equivalent thereof, and at least two to three years of experience in the relevant field, e.g., integrated circuit design (including power electronics).” Dkt. No. 73 at 2.

In its reply brief, Plaintiff submits: “Garrity is agreeable to withdrawing its request for *wireless* experience necessarily from its proposal.” Dkt. No. 75 at 1.

With Plaintiff’s revised proposal, the parties appear to be in substantial agreement. Even if a dispute remains in this regard, the Court’s claim construction analysis herein remains the same under either proposal, so at this time the Court need not resolve the remaining disagreement, if any disagreement remains at all.

1. “magnetic core piecepart”

<p style="text-align: center;">“magnetic core piecepart”</p> <p style="text-align: center;">(Claims 1, 15, 18)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>“a part or substance with a relative magnetic permeability for concentrating magnetic flux”</p> <p>Alternatively, understood in context of claim language (reciting, <i>inter alia</i>, “a transformer”) “a part or substance with a relative magnetic permeability for concentrating magnetic flux in a transformer”</p>	<p>“core piecepart having magnetic properties”</p>

Dkt. No. 91-1 at 1; Dkt. No. 67 at 6; Dkt. No. 73 at 4; Dkt. No. 92-1 at 1.

Shortly before the start of the July 28, 2021 hearing, the Court provided the parties with the following preliminary construction: “core piece that is made of magnetic material.”

(a) The Parties' Positions

Plaintiff argues that “Garrity’s proposed construction for MCP gives meaning to the whole claim language and tracks the language used in the specification of the ’067 Patent.” Dkt. No. 67 at 7. Plaintiff also submits that “a permanent magnet has a magnetic permeability substantially equal to air or plastic and thus does not concentrate magnetic flux and performs no function in forming a transformer,” and Plaintiff argues that “[t]he ’067 Patent also expressly discloses the use of permanent magnets for alignment, and those magnets are not conflated with MCPs.” *Id.* at 7 (citing ’067 Patent at Claim 2, Fig. 12B). Plaintiff urges that “[a]s explained in Garrity’s tutorial and Dr. Ricketts’s report, magnetic permeability is an important property in wireless power transfer through an isolation path of a transformer, and each of the materials disclosed in the ’067 Patent as exemplary for composing the MCP (e.g., *soft* ferrite and *ferromagnetic* substances) are materials having high relative magnetic permeability—not *any* magnetic properties.” Dkt. No. 67 at 9. Further, Plaintiff argues that “the [’]067 Patent disparages conventional systems using air-core or non-magnetic-core transformers” *Id.* at 9 (discussing ’067 Patent at 4:20–28). Plaintiff also cites extrinsic evidence that “[m]agnetic permeability and relative magnetic permeability are magnetic properties of all materials and a measure of a material’s ability to *concentrate* magnetic flux” Dkt. No. 67 at 11. Finally, Plaintiff argues that Defendants’ proposed construction “is broad enough to cover a permanent magnet, or even an air or inert core,” which Plaintiff argues “is overly broad and unsupported.” *Id.* at 15; *see id.* at 15–18.

Defendants respond that Plaintiff’s proposed construction should be rejected because a magnetic core piecepart “can be constructed from any magnetic material, including a magnet,” and “Garrity’s construction also broadens ‘core piecepart’ to require only a ‘part *or* substance,’

which practically reads the phrase core *piecepart* out of the claims.” Dkt. No. 73 at 4–5. Defendants argue that “Samsung’s construction leaves the phrase ‘core piecepart’ intact, because that term is not ambiguous and does not need construction.” *Id.* at 5. Defendants also submit that “only two claims—unasserted claims 13 and 14—define a limited range for a magnetic core piecepart’s relative magnetic permeability, and neither requires a high magnetic permeability.” *Id.* Defendants urge that “[b]ecause claims 1, 15, and 18 do not expressly limit the relative magnetic permeability of the claimed magnetic core pieceparts, and because a transformer can be formed with core pieceparts that do not concentrate magnetic flux, the claim language does not support either of Garrity’s constructions.” *Id.* at 6.

As to the specification, Defendants respond that “Garrity focuses on the exemplary embodiments, but does not identify a single statement expressly limiting a magnetic core piecepart to having a high magnetic permeability,” and “[t]he purportedly limiting statements Garrity cites carry even less weight when one considers that the specification also describes magnetic core pieceparts with permeability as low as air.” *Id.* at 6–7 (citing ’067 Patent at 14:46–49, 17:38–44). As to extrinsic evidence cited by Plaintiff, Defendants respond that “the Court need not reach those extrinsic publications, which contradict the intrinsic record,” and even if those publications did merit consideration (they do not), the publications post-date the ’067 patent and come from unreliable sources such as wisegeek.com and Wikipedia.com, which are thus not probative of how a POSA would have understood the claims at the time of the alleged invention.” Dkt. No. 73 at 8–9 (citations omitted).

As to Defendants’ proposed construction, Defendants respond that “[c]onstruing a ‘core piecepart’ as a substance practically reads it out of the claims,” and “[j]ust as a POSA would understand the term conductive, used in countless patents, to refer to materials that are of a class

commonly understood to be conductive (even though all materials have some level of conductivity), so, too, would a POSA understand that the class of materials having magnetic properties is not unbounded.” *Id.* at 10. Defendants argue that “[a] POSA would understand that Samsung’s construction refers to materials that are generally understood to have magnetic properties, or, put another way, to be in the class of magnetic materials,” and “[t]his class is well-defined in the art.” *Id.* at 11.

Plaintiff replies that “magnetic core” is a term of art, and “Samsung is asking this Court to find that Prof. Ricketts lacks credibility based on attorney-argument only.” Dkt. No. 75 at 3; *see id.* at 2–4.

At the July 28, 2021 hearing, Plaintiff argued that the term “magnetic core” is a term of art and cannot be split into simply “magnetic” and “core.” Plaintiff also noted that Defendants provide no definition for “magnetic.” Plaintiff urged that a magnetic core piecepart is a piece of a transformer core with material properties that cause significantly higher magnetic flux through a transformer during operation, as compared with the amount of magnetic flux that would occur through the transformer in the absence of the core. Plaintiff argued that whereas certain claims and disclosures in the specification refer to “low” relative magnetic permeability in the range of 4 to 100 (*see* ’067 Patent at 14:46–57; *see also id.* at Cl. 14), a “magnetic core piecepart” would have a relative magnetic permeability greater than 100. Defendants responded that the specification distinguishes between magnetic and nonmagnetic materials, and Defendants agreed with the Court’s preliminary construction.

(b) Analysis

Claim 1, for example, recites (emphasis added):

1. An apparatus, comprising:

a first *magnetic core piecepart* having a first metallic coil encircling at least a portion thereof and configured to be coupled to, aligned with and removable from a second *magnetic core piecepart* having a second metallic coil encircling at least a portion thereof to form a transformer; and

a battery metalically coupled to said first metallic coil and configured to be charged and discharged through an electrically isolating path of said transformer.

The claim thus recites components that can be brought together to form a transformer.

Plaintiff submits that it “does not take a position with respect to the construction of a third or fourth magnetic core piecepart as recited in non-asserted claims 13–14 and shown in FIGS. 11 and 16.” Dkt. No. 67 at 6 n.3. Plaintiff also argued at the July 28, 2021 hearing that the third and fourth magnetic core pieceparts are used for different purposes than the first and second magnetic core pieceparts. Yet, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term,” and “[b]ecause claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Phillips*, 415 F.3d at 1314.

Claims 13 and 14 recite (emphasis added):

13. The apparatus as recited in claim 1 further comprising a third magnetic core piecepart *having a relative magnetic permeability between a relative magnetic permeability of air and said first magnetic core piecepart* and couplable to said first magnetic core piecepart or said second magnetic core piecepart.

14. The apparatus as recited in claim 13 *wherein said relative magnetic permeability of said third magnetic core piecepart is between 4 and 100.*

Because Claims 13 and 14 (especially Claim 14) add limitations regarding magnetic permeability, the doctrine of claim differentiation weighs against Plaintiff’s proposal that permanent magnets should be excluded from the scope of the disputed terms based on their typical values of permeability. *See Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d

1225, 1233 (Fed. Cir. 2001) (“Claim differentiation, while often argued to be controlling when it does not apply, is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.”).

The specification likewise discloses, for example, that “[t]he third magnetic core piecepart 1130 has a relative magnetic permeability between a relative magnetic permeability of air and the first magnetic core piecepart 1110.” ’067 Patent at 14:46–49; *see id.* at 17:38–44 (similar); *see also id.* at 16:26–47 & Fig. 16; *Free Motion Fitness, Inc. v. Cybex Int’l, Inc.*, 423 F.3d 1343, 1348 (Fed. Cir. 2005) (“[t]he use of the terms ‘first’ and ‘second’ is a common patent-law convention to distinguish between repeated instances of an element or limitation”) (quoting *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003)). By disclosing magnetic core pieceparts that can have a relative magnetic permeability nearly as low as that of air, the claims and the specification contemplate that a magnetic core piecepart does not necessarily significantly enhance the magnetic flux through a transformer.

The specification further discloses:

The wireless battery magnetic core piecepart 202 is typically composed of, without limitation, a soft ferrite, powered [*sic*] iron, or some other ferromagnetic substance with high magnetic permeability.

* * *

The wireless battery interface 250 is formed with a metallic coil 251 surrounding a wireless battery interface magnetic core piecepart 252 that can be used to both transmit and receive power. The wireless battery interface magnetic core piecepart 252 is typically constructed with a soft ferrite, powered [*sic*] iron, or some other ferromagnetic substance. The magnetic core pieceparts 202, 252 link most of the magnetic flux that passes between the metallic coils 201, 251. There is a small air gap in the magnetic path created by the magnetic core pieceparts 202, 252. The air gap is typically due to the enclosures of the wireless battery 200 and the wireless battery interface 250. In practice, however, the air gaps can be kept quite small such as 3 or 4 millimeters (“mm”). It would be advantageous to

maintain the air gaps to be smaller than about 1.5 times the square-root of the cross-sectional area of the magnetic core pieceparts 202, 252 to reduce (e.g., minimize) fringing of the magnetic flux. The magnetic core pieceparts 202, 252 with the corresponding metallic coils 201, 251 form a transformer of the power system.

'067 Patent at 5:25–29, 5:56–6:8; *see id.* at 8:47–51 (“Operating in dc transformer mode of operation is possible because the magnetic core pieceparts 202, 252 provide consistent and tight coupling [of magnetic flux] between the metallic coils 201, 251 illustrated in FIG. 2”).

Limiting the scope of the disputed term based on disclosures regarding particular materials that may be suitable for the “magnetic core piecepart,” however, would improperly import a specific limitation from preferred embodiments. *See Phillips*, 415 F.3d at 1323.

Plaintiff also notes that the specification refers to permanent alignment magnets as distinct from magnetic core pieceparts:

The first magnetic core piecepart and the second magnetic core piecepart may be configured to be aligned with a permanent magnet (see, e.g., the permanent magnet aligners illustrated in FIGS. 12A, 12B and 13).

Id. at 16:64–67; *see id.* at 15:2–7 (“permanent magnet aligner”). This distinction also appears in Claim 2, which recites “[t]he apparatus as recited in claim 1 wherein said first magnetic core piecepart and said second magnetic core piecepart are configured to be aligned with a permanent magnet.” Defendants acknowledged at the July 28, 2021 hearing that Defendants did not ask Plaintiff’s expert at his deposition about whether a permanent magnet can be a magnetic core piecepart, and Defendants present no expert opinions on this issue.

The disclosure that magnetic aligners can be permanent magnets does not, however, preclude a permanent magnet from being used as a magnetic core piecepart.

Further, the claims only recite forming a transformer, not a transformer that “concentrat[es] magnetic flux” as Plaintiff proposes. Plaintiff cites disclosure that Plaintiff

characterizes as disparaging conventional systems that use air core transformers or non-magnetic core transformers:

In conventional battery charging arrangements using magnetic devices (e.g., a transformer), transmit and receive coils (or windings) of the transformer are coupled through a common flux path including air or other substance of equivalent magnetic permeability. This creates a substantial amount of loss due to poor magnetic flux coupling, and the resulting power transfer efficiency of the conventional wireless battery power system is typically only on the order of 50 percent.

Id. at 4:20–28.

Yet, Plaintiff’s expert acknowledges that a transformer can be formed with cores that have low magnetic permeability and that do not appreciably concentrate magnetic flux. *See* Dkt. No. 67-5 ¶ 30 (illustrating “an air-gap (or air-core) transformer (the material between and surrounding the coils is air”), ¶ 88 (using air or plastic cores without “significant magnetic permeability”). Likewise, in deposition testimony, Plaintiff’s expert affirmed that a transformer with a low-permeability core, such as an air core, can enable wireless power transfer:

Q. Right. So an air gap or air core transformer does, in fact, enable wireless power transfer; true?

A. True, yes.

Dkt. No. 67-11, Ricketts Dep. at 49:10–13.

Thus, although particular materials may be preferred over others, the patentee did not limit the claim scope in that regard. *See Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012) (“[E]ven where a particular structure makes it ‘particularly difficult’ to obtain certain benefits of the claimed invention, this does not rise to the level of disavowal of the structure.”) (citation omitted).

The deposition testimony of Defendants’ expert cited by Plaintiff does not significantly affect the Court’s analysis. *See* Dkt. No. 67-12, Zane Dep. at 84:12—85:20 (as to whether there

is any embodiment described that includes an air core, testifying that “this isn’t a term I’ve carefully analyzed and considered in the context of the ’067” and “I don’t recollect a description of an air core in the ’067 patent or the term ‘air core’”); *see also id.* at 92:21–94:21 (discussing purpose of a core in a transformer), 96:9–14 (“the use of a material with permeability that exceeds that of air can be used to shape a magnetic field in a way that would be different than it would be accomplished with only air around the coils”). Indeed, Defendants’ expert has not provided any opinion regarding the term “magnetic core piecepart.”

Plaintiff submits additional extrinsic evidence that “permeability” is a magnetic property of all materials and is a measure of a material’s ability to concentrate magnetic flux. *See, e.g., See generally* Dkt. No. 67-2.

As a threshold matter, the online, post-priority-date sources cited by Plaintiff such as Wikipedia and “wisegeek.com,” even if considered, are unpersuasive in the present case. *See, e.g., Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1299 (Fed. Cir. 2003). The deposition testimony of Plaintiff’s expert, cited by Plaintiff in support of Plaintiff’s reliance on Wikipedia, is unpersuasive. *See* Dkt. No. 67-11, Ricketts Dep. at 56:16–57:18 (“So I cited Wikipedia in — in several areas because one of the benefits of Wikipedia is it’s generally written in what is commonly understood. So if I want to understand – for instance, I believe I cited it for the definition of a magnetic core. And so it provides a clear definition that would be available to a POSA, and then also was written in a style that would be accessible and also similar to what a POSA would understand. So I think in that sense, it’s a good reference.”). Plaintiff’s discussion of references cited by Wikipedia likewise does not significantly affect the Court’s analysis as to any point here in dispute. *See* Dkt. No. 75 at 2–3; *see also* Dkt. No 75-1, 75-2.

The general technical points put forward by Plaintiff are not in dispute. Defendants acknowledge that all materials have various properties, including magnetic properties. Plaintiff also submits that the phrase “magnetic core” has been used in the relevant art, particularly in the context of forming a transformer. *See* Dkt. No. 67-5 ¶¶ 47–53, 92–96. Again, the general technical points regarding magnetic properties such as permeability are not in dispute.

The opinions of Plaintiff’s expert are unpersuasive on the ultimate issue of claim construction. Although Defendants offer no competing expert opinion, Plaintiff’s proposal cannot be reconciled with the intrinsic evidence. In addition to above-discussed disclosures and recitals regarding relative magnetic permeabilities set forth in particular claims and particular embodiments, the claim language (such as reproduced above) refers to each “magnetic core piecepart” being configured for alignment and removability, which is a recited property and purpose *other than* concentrating magnetic flux. Plaintiff’s proposed interpretation is therefore not necessary to give meaning to the claim language. Thus, the intrinsic evidence weighs against Plaintiff’s proposal of requiring concentrating magnetic flux, and the opinions of Plaintiff’s expert, even in the absence of any competing expert opinions, are unpersuasive.

Also, Plaintiff’s proposal of “substance” does not give proper effect to the constituent term “piecepart.” This constituent term “piecepart” implies some structure. For example, although the parties agree that a functioning transformer could have an “air core,” which would essentially be empty space, Plaintiff does not demonstrate that such empty space could be a “piecepart.” Plaintiff’s proposal of “substance” should therefore be rejected. *See Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1257 (Fed. Cir. 2010) (“Claims must be ‘interpreted with an eye toward giving effect to all terms in the claim.’”) (quoting *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006))). Although Plaintiff submits that a

permanent magnet would have a permeability substantially equal to the permeability of air, a permanent magnet is a structure, as demonstrated by the specification cited above.

Finally, Defendants submit persuasive evidence that a person of ordinary skill in the art would understand “magnetic” in the context of this disputed term as referring to a known class of materials (rather than to the magnetic properties of any material). *See K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1365 (Fed. Cir. 1999) (“claim construction is firmly anchored in reality by the understanding of those of ordinary skill in the art”). For example, Defendants submit a portion of a treatise that explains:

Magnetic materials are those materials that can be either attracted or repelled by a magnet and can be magnetized themselves. The most commonly used magnetic materials are iron and steel. A permanent magnet is made of a very hard magnetic material, such as cobalt steel, that retains its magnetism for long periods of time when the magnetizing field is removed. A temporary magnet is a material that will not retain its magnetism when the field is removed.

Permeability (μ) refers to the ability of a material to concentrate magnetic lines of flux. Those materials that can be easily magnetized are considered to have a high permeability. * * *

Magnetic materials are classified as either magnetic or nonmagnetic based on the highly magnetic properties of iron. Because even weak magnetic materials may serve a useful purpose in some applications, classification includes the three groups described below.

Ferromagnetic Materials: Some of the ferromagnetic materials used are iron, steel, nickel, cobalt, and the commercial alloys, alnico and peralloy. Ferrites are nonmagnetic, but have the ferromagnetic properties of iron. Ferrites are made of ceramic material and have relative permeabilities that range from 50 to 200. They are commonly used in the coils for RF (radio frequency) transformers.

Paramagnetic Materials: These are materials such as aluminum, platinum, manganese, and chromium. These materials have a relative permeability of slightly more than one.

Diamagnetic Materials: These are materials such as bismuth, antimony, copper, zinc, mercury, gold, and silver. These materials have a relative permeability of less than one.

Dkt. No. 73-3, Department of Energy, *DOE Fundamentals Handbook: Electrical Science* 30 (1992); *see also* Dkt. No. 73-4, *Webster's Third New International Dictionary Unabridged* 4 (2002) (defining “magnetic” as, for example, “magnetized or capable of being magnetized”). Also of note, the '067 Patent refers to “nonmagnetic material such as plastic,” which is consistent with Defendants’ assertion that a person of ordinary skill in the art would understand a distinction between “magnetic” and “nonmagnetic” materials. '067 Patent at 16:24–25.

Any remaining disputes, such as regarding prior art references and the application of such references to the disputed term, relate to questions such as anticipation or obviousness, not claim construction. *See* Dkt. No. 67 at 6–7; *see also Phillips*, 415 F.3d at 1327 (“While we have acknowledged the maxim that claims should be construed to preserve their validity, we have not applied that principle broadly, and we have certainly not endorsed a regime in which validity analysis is a regular component of claim construction.”).

As to the proper construction, the Court rejects Plaintiff’s apparent suggestion that construing the disputed term to have its plain meaning would be appropriate. *See* Dkt. No. 67 at 11 (citing *Huawei Tech. Co. Ltd. v. Verizon Commc’n, Inc.*, No. 2:20-CV-00030-JRG, slip op. at 36 (E.D. Tex. Jan. 15, 2021) (adopting “plain and ordinary meaning, as informed by the G.709 standard”)). “[S]ome construction of the disputed claim language will assist the jury to understand the claims.” *TQP Dev., LLC v. Merrill Lynch & Co.*, No. 2:08-CV-471-WCB, 2012 WL 1940849, at *2 (E.D. Tex. May 29, 2012) (Bryson, J., sitting by designation).

The Court therefore hereby construes **“magnetic core piecepart”** to mean **“core piece that is made of magnetic material.”**

2. “encircling at least a portion”

<p style="text-align: center;">“encircling at least a portion”</p> <p style="text-align: center;">(Claims 1, 15, 18)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary; plain and ordinary meaning; alternatively, “surrounding at least a portion”; alternatively, “winding around at least a portion”	“forming a circle around at least a portion”

Dkt. No. 91-1 at 3; Dkt. No. 67 at 18; Dkt. No. 73 at 12; Dkt. No. 92-1 at 2 & n.1.

Shortly before the start of the July 28, 2021 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning.”

(a) The Parties’ Positions

Plaintiff argues that “[i]t is unclear what (if any) underlying controversy exists with respect to this Disputed Term.” Dkt. No. 67 at 19. Plaintiff also argues that “nothing in the language of claims 1, 15, or 18 (or any other claim) recite any particular geometric shape for the coil, let alone the coil forming a substantially perfect ‘circle.’” *Id.* As to the prosecution history, Plaintiff argues that “there is no inference a POSA would understand that the amendment added a requirement for the coil to form a substantially perfect geometric circle.” *Id.* at 20. Further, Plaintiff submits that “[e]ncircling’ is not a technical term,” and whereas Defendants’ expert provides no opinion on this term, Plaintiff’s expert “cogently explained during his deposition how ‘encircling’ is synonymous with ‘surrounding’ and restructuring the clause by moving the ‘encircling’ term to after the coil aided in clarifying the claims.” *Id.* at 21.

Defendants respond that “[f]ar from requiring a ‘substantially perfect geometric circle’ as Garrity contends, however, Samsung’s construction, which is consistent with Garrity’s chosen

claim language and the prosecution history, merely requires a circle.” Dkt. No. 73 at 12. Defendants submit that “Garrity’s claims initially recited coils ‘surrounding’ magnetic core pieceparts,” and Defendants argue that “Garrity is now asking the Court to replace ‘encircling’ with ‘surrounding’ or ‘winding around,’ which would undo its prior claim amendment and recapture claim scope disclosed by the prior art.” *Id.* at 13. Defendants urge that “[h]aving narrowed its claims, Garrity cannot now complain that the specification describes its alleged invention in broader terms than it claimed and use that as a basis for seeking to have the claims construed to encompass all that it described.” *Id.* at 16.

Plaintiff replies that Defendants misinterpret the prosecution history, and “the record of the ’067 Patent is clear that the amendment was for clarification.” Dkt. No. 75 at 4–5.

At the July 28, 2021 hearing, the parties reiterated the arguments set forth in their briefing. Plaintiff also discussed evidence of the prosecution history, including an examiner interview summary (discussed below). Defendants emphasized *Syneron Med. Ltd. v. Viora Ltd.*, No. 2:14-CV-639, 2015 WL 1952360, at *17 (E.D. Tex. Apr. 10, 2015) (Gilstrap, J.) (discussing that patentee “followed the examiner’s suggestion of narrowing the scope of the claims,” and citing authority for proposition that “a patentee acquiescing in an examiner’s rejection of a broad claim by filing narrower claims cannot later regain the broader scope previously abandoned”) (citing *Lemelson v. Gen. Mills, Inc.*, 968 F.2d 1202, 1207–08 (Fed. Cir. 1992)).

(b) Analysis

As a threshold matter, Plaintiff points to *Inter Partes* Review (“IPR”) proceedings¹ in which Defendants did not propose construing this term, but Plaintiff does not show that the absence of a proposed construction in IPR proceedings necessarily precludes an accused infringer from proposing a construction in litigation. Plaintiff cites authority that “[h]aving construed the claim one way for determining their validity, it is axiomatic that the claim must be construed in the same way for infringement.” *W.L. Gore & Assoc. Inc. v. Garlock Inc.*, 842 F.2d 1275, 1279 (Fed. Cir. 1988). More applicable, however, is authority demonstrating that, in an IPR proceeding, the U.S. Patent Trial and Appeal Board (“PTAB”) construes terms only where necessary for purposes of the proceeding. *See Unified Patents LLC v. Velos Media, LLC*, IPR2020-00352, Paper 39 at 9–10 (P.T.A.B. June 28, 2021) (finding no construction necessary for a term, and citing “*Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (explaining that construction is needed only for terms that are in dispute, and only as necessary to resolve the controversy)”).

Turning to the intrinsic evidence, Claim 1, for example, recites (emphasis added):

1. An apparatus, comprising:

a first magnetic core piecepart having a first metallic coil *encircling at least a portion* thereof and configured to be coupled to, aligned with and removable from a second magnetic core piecepart having a second metallic coil *encircling at least a portion* thereof to form a transformer; and

a battery metalically coupled to said first metallic coil and configured to be charged and discharged through an electrically isolating path of said transformer.

Claim 15 recites “a first metallic coil encircling at least a portion of said wireless

¹ The Court would like to note that the PTAB’s decision denying institution of the patent-in-suit was issued after claim construction briefing was finished, but before the Court held its claim construction hearing. *See* Dkt. No. 101. Neither party, however, sought leave to supplement their briefing to include discussion of the IPR nor did either party substantively address the merits of the IPR decision during the hearing. The IPR decision, therefore, was not substantively part of the record in this case until after the parties were heard. Further, neither party advocated for the Court to review the PTAB’s decision.

battery magnetic core piecepart.” Claim 18 recites “a second metallic coil encircling at least a portion of said wireless battery interface magnetic core piecepart.”

The specification discloses:

The wireless battery 130 is docked into the wireless battery interface 120 by a coupler. The coupler links a magnetic field 140 induced by a metallic coil (or winding) 150 surrounding a wireless battery interface magnetic core piecepart in the wireless battery interface 120 with a wireless battery magnetic core piecepart in the wireless battery 130.

’067 Patent at 4:61–67; *see also id.* at 5:20–25, 6:6–8 (metallic coils “surrounding” or having “corresponding” magnetic core pieceparts); *id.* at 14:64–66 (Fig. 12A is “an embodiment of a permanent magnet aligner”).

As for extrinsic evidence, Plaintiff cites a dictionary definition of “encircle” as meaning “to surround somebody/something completely in a circle.” *See* Dkt. No. 67-2 at 8, *Oxford Advanced Learner’s Dictionary* (2021). Setting aside whether this online, non-contemporaneous dictionary (dated in 2021) should be considered, Defendants do not appear to challenge the general proposition that the common meaning of the word “encircle” could include merely surrounding rather than necessarily forming a circle.

The deposition testimony of Defendants’ expert cited by Plaintiff does not significantly affect the Court’s analysis. *See, e.g.,* Dkt. No. 67-12, Zane Dep. at 46:11 *et seq.* Defendants’ expert has not provided any opinion regarding the term “encircling at least a portion.” *See id.* at 46:11–25 (“I have not been asked to consider those terms and have not reviewed and provided an opinion on them.”). Also, the opinions of Plaintiff’s expert merely reinforce the general notion that the common meaning of “encircling” can mean surrounding. *See* Dkt. No. 67-11, Ricketts Dep. at 61:06–73:24.

Instead, the present dispute turns on the prosecution history. Defendants submit the following summary of the claim amendments here at issue (Dkt. No. 73 at 14 (additions underlined; deletions in strikeout or square brackets; bold added by Defendants for emphasis)):

Garrity's Claim Amendments
Claim 1: “[A] removable first magnetic core piecepart having a surrounding first metallic coil <u>encircling at least a portion thereof</u> and configured to be coupled to and aligned with and removable from a second magnetic core piecepart having a surrounding second metallic coil <u>encircling at least a portion thereof</u> to form a transformer”
Claim 15: “[A] wireless battery, including: a removable wireless battery magnetic core piecepart configured to be coupled to and aligned with and removable from said wireless battery interface magnetic core piecepart to form a transformer; and a battery metallicity coupled to a first metallic coil surrounding <u>encircling at least a portion of</u> said wireless battery magnetic core piecepart”
Claim 18: “[A] second metallic coil surrounding <u>encircling at least a portion of</u> said wireless battery interface magnetic core piecepart”

In some cases, a patentee may have “limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Phillips*, 415 F.3d at 1317. Also, “when a word is changed during prosecution, the change tends to suggest that the new word differs in meaning in some way from the original word.” *Ajinomoto Co. v. ITC*, 932 F.3d 1342, 1351 (Fed. Cir. 2019). But “for prosecution disclaimer to attach,” the Court of Appeals for the Federal Circuit “requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1325–26 (Fed. Cir. 2003).

Here, Defendants cite prosecution history in which the patentee removed “surrounding” and inserted “encircling at least a portion thereof” elsewhere. *See* Dkt. No. 73 at 13–14. In particular, Defendants argue that the patentee made these amendments in response to a rejection based on United States Patent Application Publication No. 2014/0084862 (“Kawaguchi”), which the examiner cited as having a “surrounding second metallic coil” based on the disclosure of

“coil N2” in Kawaguchi, which “is wound around the core 14.” Dkt. No. 73-4 at 6, Office Action (citing Kawaguchi at Fig. 2). Defendants note that “coil N2” in Kawaguchi was a square-shaped coil wound around a square-shaped core.

The patentee then amended by removing “surrounding” and inserting “encircling at least a portion thereof” elsewhere. *See* Dkt. No. 73 at 14 (shown above); *see also* Dkt. No. 95-1 at 34–37, May 12, 2017 Amendment Under C.F.R. § 1.111.

Defendants submit that the examiner then cited United States Patent Application No. 2014/0139178 (“Large”), and Defendants note Large disclosed a circular coil around a circular core. *See* Dkt. No. 73-5 at 35–36, July 27, 2017 Office Action.

Defendants infer: “The Examiner plainly understood that while a square coil could ‘surround’ a core, it could not ‘encircle’ a core. A circular coil, however, encircles a core.” Dkt. No. 73 at 15. Defendants cite authority that “[a]fter adding a claim limitation during prosecution to overcome prior art, the applicant cannot later assert that the distinguished feature of the prior art is equivalent to the added limitation.” *Augustine Med., Inc. v. Gaymar Indus., Inc.*, 181 F.3d 1291, 1299 (Fed. Cir. 1999) (citing *Litton Sys., Inc. v. Honeywell, Inc.*, 140 F.3d 1449, 1462 (Fed. Cir. 1998)).

The *Augustine* case cited by Defendants relates to the doctrine of equivalents and prosecution history estoppel, not prosecution disclaimer, so *Augustine* is inapplicable to the present dispute regarding prosecution disclaimer. *See* 181 F.3d at 1298–99. Additional authorities cited by Defendants are likewise unpersuasive as they relate to the doctrine of equivalents and prosecution history estoppel. *See Pharma Tech Sols., Inc. v. LifeScan, Inc.*, 942 F.3d 1372, 1380 (Fed. Cir. 2019) (“patentee’s decision to narrow his claims through amendment may be presumed to be a general disclaimer of the territory between the original claim and the

amended claim.”) (quoting *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 740 (2002)).

Regardless, Defendants’ proposed disclaimer or interpretation is not “clear and unmistakable” from this prosecution history. *Omega Eng’g*, 334 F.3d at 1325–26. Defendants point to particular disclosures in the cited references, as noted above, but Defendants identify no definitive statement by the patentee regarding a narrow interpretation of “encircling.” *See id.* at 1324; *see also* Dkt. No. 67-4 at 11–14, May 12, 2017 Amendment Under 37 C.F.R. § 1.111. Admittedly, as a general matter, even where “the prosecution history statements do not rise to the level of unmistakable disavowal, they do inform the claim construction.” *Shire Development, LLC v. Watson Pharm., Inc.*, 787 F.3d 1359, 1366 (Fed. Cir. 2015). Here, however, the applicable principle is that “[i]t is well settled, however, that it is the applicant, not the examiner, who must give up or disclaim subject matter that would otherwise fall within the scope of the claims.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1124 (Fed. Cir. 2004).

Plaintiff notes, for example, that Kawaguchi explicitly disclosed that “although the square shape is adopted as the shapes of the cores 14, 17, and the coils N1 through N3 in Example 1, a circular shape or a triangular shape can also be adopted.” Dkt. No. 75-5, Kawaguchi ¶ 45. Also, Plaintiff cites evidence that the amendment here at issue arose from a suggestion by the examiner during an examiner interview. *See* Dkt. No. 75 at 4; *see also* Dkt. No. 67-4 at 12, May 12, 2017 Amendment Under 37 C.F.R. § 1.111 (patentee referring to “clarifying modifications to the independent claims in view of the Examiner Interview”). The prosecution history includes the following summary of this examiner interview:

The applicant’s representative initiated the interview in order to discuss inventive concept as recited in claim 1, especially for the limitation “a second magnetic core

piecepart" is removable" [*sic*, quotation marks as in original]. The examiner explained the rejection of claim [*sic*] as presented in the previous Office Action is considered proper as removable is not recited for the limitation "a second magnetic core piecepart". Examiner suggested to amend the claim language to recite "removable feature of second magnetic core" and "how the coil is surrounded on the magnetic core". No agreement was reached.

Dkt. No. 95-1 at 31, May 12, 2017 Applicant-Initiated Interview Summary.

These circumstances weigh further against inferring any disclaimer by the patentee. Instead, a fair reading is that the examiner rejected the claims and raised multiple issues, such as positioning and removability, and the examiner interview summary likewise refers to multiple issues, such as the general relationship between components, and does not refer to any distinction between a circular shape and a square or a rectangular shape. *See id.*; *see also* Dkt. No. 95-1 at 4, Office Action. The patentee then amended several aspects of the claim, including restructuring the claim as to the particular limitation here at issue. Defendants' interpretation of this prosecution history, as purportedly amending so as to replace "surrounding" with a requirement of a circular shape, is not sufficiently clear from the evidence.

The deposition testimony of Plaintiff's expert cited by Defendants, to whatever extent it might be relevant in assessing this prosecution history, is equivocal and does not persuasively support Defendants' interpretation. *See* Dkt. 67-11, Ricketts Dep. at 73:8–12 ("I cannot substantiate or state without any doubt that this [claim amendment] was made for - that this was only made for clarifying and there wasn't another reason to make it, such as overcoming prior art."). Also, Defendants do not show that any post hoc disclaimer could arise from statements by Plaintiff's expert regarding the prosecution history.

Further, although the specification discloses examples of coils that appear to be circular, this is a specific feature of particular disclosed embodiments that should not be imported into the claims. *See Phillips*, 415 F.3d at 1323. Finally, the extrinsic definitions cited by Defendants

include forming a circle, but some of the extrinsic definitions are also broader, including surrounding. *See* Dkt. No. 73-4, 73-6, 73-7.

Based on all of the foregoing, the Court hereby expressly rejects Defendants’ proposed construction, and no further construction is necessary. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”); *Finjan, Inc. v. Secure Computing Corp.*, 626 F.3d 1197, 1207 (Fed. Cir. 2010) (“Unlike *O2 Micro*, where the court failed to resolve the parties’ quarrel, the district court rejected Defendants’ construction.”); *ActiveVideo Networks, Inc. v. Verizon Commcn’s, Inc.*, 694 F.3d 1312, 1326 (Fed. Cir. 2012); *Summit 6, LLC v. Samsung Elecs. Co., Ltd.*, 802 F.3d 1283, 1291 (Fed. Cir. 2015); *Bayer Healthcare LLC v. Baxalta Inc.*, 989 F.3d 964, 977–79 (Fed. Cir. 2021).

Any remaining issues regarding whether the coils in accused devices satisfy the limitations here at issue relate to questions of fact for the finder of fact rather than any question of law for claim construction. *See PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998) (“after the court has defined the claim with whatever specificity and precision is warranted by the language of the claim and the evidence bearing on the proper construction, the task of determining whether the construed claim reads on the accused product is for the finder of fact”); *see also Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007) (“[t]he resolution of some line-drawing problems . . . is properly left to the trier of fact”) (citing *PPG*,

156 F.3d at 1355); *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1318–19 (Fed. Cir. 2016) (citing *PPG*, 156 F.3d at 1355; citing *Acumed*, 483 F.3d at 806).

The Court therefore hereby construes **“encircling at least a portion”** to have its **plain meaning**.

3. **“burst mode of operation”**

“burst mode of operation” (Claim 9)	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary; plain and ordinary meaning	“mode of operation where the first switching circuit is periodically activated and deactivated to regulate an input or output power or voltage of the first switching circuit”

Dkt. No. 91-1 at 4; Dkt. No. 67 at 22; Dkt. No. 73 at 17; Dkt. No. 92-1 at 3.

Shortly before the start of the July 28, 2021 hearing, the Court provided the parties with the following preliminary construction: “a mode of operation wherein the power train is periodically activated and deactivated.”

At the July 28, 2021 hearing, neither side objected to the Court’s preliminary construction, and the Court finds that construing this term will assist the finder of fact. *See TQP*, 2012 WL 1940849, at *2 (“some construction of the disputed claim language will assist the jury to understand the claims”).

The Court therefore hereby construes **“burst mode of operation”** to mean **“a mode of operation wherein the power train is periodically activated and deactivated.”**

4. “wherein said power train is configured to enable said battery to be successively charged and discharged without changing a duty cycle of said first switching circuit and said second switching circuit”

<p>“wherein said power train is configured to enable said battery to be successively charged and discharged without changing a duty cycle of said first switching circuit and said second switching circuit”</p> <p>(Claim 12)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
No construction necessary; plain and ordinary meaning	“wherein said power train successively charges and discharges said battery while the power train is active without changing a duty cycle of said first switching circuit and said second switching circuit”

Dkt. No. 91-1 at 5; Dkt. No. 67 at 23; Dkt. No. 73 at 22; Dkt. No. 92-1 at 4.

Shortly before the start of the July 28, 2021 hearing, the Court provided the parties with the following preliminary construction: “Plain meaning.”

(a) The Parties’ Positions

Plaintiff argues that whereas “without changing” “is a plain-English phrase,” “Samsung has not made clear how its proposed construction changes the scope of the claim.” Dkt. No. 67 at 24.

Defendants respond that “[u]nder Samsung’s construction, the power train must successively charge and discharge the battery while the power train is active because deactivating the power train would stop at least the first switching circuit, thereby changing its duty cycle to zero in contravention of the plain language of claim 12.” Dkt. No. 73 at 22.

Defendants argue:

It is not clear (i) whether Garrity’s position is that the claim does not even require *successively* charging and discharging the battery, so long as the duty cycle is the

same at two points in time when either charging or discharging, or alternatively, (ii) whether its position is that the switching circuits' duty cycles can change between successive charging and discharging, so long as they eventually return to the original value. Neither option is consistent with the plain language of the claim because the first does not require being configured to successively charge and discharge, and the second permits the duty cycle to change.

Id. at 22–23. Defendants also argue that the specification is consistent with Defendants' proposed construction. *See id.* at 23–24.

Plaintiff replies that “Samsung’s construction changes the meaning of ‘said power train is configured to enable successively charging and discharging said battery without changing the duty cycle’—to effectively import the new limitation of *while the powertrain is actively and continuously operating*.” Dkt. No. 75 at 7. Plaintiff submits that “Samsung already agreed that ‘configured’ shall have its plain and ordinary meaning.” *Id.* (citing Dkt. No. 61 at 1). Plaintiff also argues that “claim 12 is a ‘comprising’ claim thus and [*sic*, any] additional steps like shutting down or entering a low power state will not take an infringer out the ambit of infringement.” Dkt. No. 75 at 8. Further, Plaintiff submits that “the duty cycle would [be] a variable or parameter and evidenced in source code for software or firmware for accused products or their relevant components.” *Id.* at 9.

At the July 28, 2021 hearing, the parties reiterated the arguments set forth in their briefing.

(b) Analysis

The disputed term appears in Claim 12, which depends from Claim 7. Claim 7, in turn, depends from Claim 1. Claims 7 and 12 recite (emphasis added):

7. The apparatus as recited in claim 1 further comprising a power train including a first switching circuit coupled to said first metallic coil configured to form a portion of a resonant topology with a second switching circuit coupled to said second metallic coil.

* * *

12. The apparatus as recited in claim 7 *wherein said power train is configured to enable said battery to be successively charged and discharged without changing a duty cycle of said first switching circuit and said second switching circuit.*

The parties have agreed that the term “duty cycle” has its “plain and ordinary meaning.”

Dkt. No. 61 at 1–2.

The specification discloses:

The power system of FIG. 2 thus behaves like an actual battery in its ability to both charge and discharge through the same two terminals without any significant change to its voltage level.

’067 Patent at 9:66–10:2; *see id.* at 9:57–60 (“allowing power flow into or out of the wireless battery 200 to *instantly switch direction* with *no change* to the gate drive signals (or *duty cycle* thereof) of the full-bridge power trains”) (emphasis added); *see also id.* at 10:8–32 (describing further advantages of instantly switching power flow direction, and applications “would include using the battery V401 for load leveling of a utility grid or using the battery V401 to provide peak load demands”).

Despite these disclosures regarding particular embodiments, however, Defendants do not adequately support their assertion that “[t]he only way the duty cycle can remain unchanged is by keeping the power train active.” Dkt. No. 73 at 23. Plaintiff persuasively argues that “the duty cycle only exists when active—this follows because duty cycle is a cycle or repeating signal; if not active, there is no cycle.” Dkt. No. 75 at 8. Plaintiff’s expert likewise opines that the claim language “is easily understood by a POSA as meaning[] that the duty cycle is the same, or does not change, when the battery is either being charged or discharged.” Dkt. No. 67-5Ricketts Decl. ¶ 118. Thus, the duty cycle is a matter of configuration and does not necessarily change upon deactivation and reactivation. Defendants present no expert opinion or other

technical evidence to rebut Plaintiff's interpretation in this regard. Also, Defendants acknowledged at the July 28, 2021 hearing that Defendants did not question Plaintiff's expert about "duty cycle" during his deposition.

The Court hereby expressly rejects Defendants' argument that deactivation of the switching circuit (between successively charging and discharging the battery) would change the duty cycle to zero. Finally, Plaintiff properly notes that Defendants' proposed construction would potentially create confusion by removing "configured to enable" and by introducing active verbs. The Court expressly rejects Defendants' proposed construction, and no further construction is necessary. *See U.S. Surgical*, 103 F.3d at 1568 ("Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy."); *see also O2 Micro*, 521 F.3d at 1362 ("[D]istrict courts are not (and should not be) required to construe every limitation present in a patent's asserted claims."); *Finjan*, 626 F.3d at 1207 ("Unlike *O2 Micro*, where the court failed to resolve the parties' quarrel, the district court rejected Defendants' construction."); *ActiveVideo*, 694 F.3d at 1326; *Summit 6*, 802 F.3d at 1291; *Bayer*, 989 F.3d at 977–79.

The Court therefore hereby construes **"wherein said power train is configured to enable said battery to be successively charged and discharged without changing a duty cycle of said first switching circuit and said second switching circuit"** to have its **plain meaning**.

5. “a wireless battery interface including a wireless battery interface magnetic core piecepart”

<p>“a wireless battery interface including a wireless battery interface magnetic core piecepart”</p> <p>(Claim 15)</p>	
Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
<p>No construction necessary; plain and ordinary meaning</p> <p>Alternatively, a second coil: “a wireless battery interface including a wireless battery interface magnetic core piecepart and including <i>a second metallic coil</i> encircling at least a portion of said wireless battery interface magnetic core piecepart”</p>	<p>No construction necessary; plain and ordinary meaning</p>

Dkt. No. 61-1 at 6; Dkt. No. 67 at 25; Dkt. No. 73 at 24; Dkt. No. 81-1 at 4.

This term is no longer in dispute. *See* Dkt. No. 91 at 3; *compare* Dkt. No. 81-1 at 4 *with* Dkt. No. 92-1. The parties now agree: “No construction necessary; plain and ordinary meaning.” Dkt. No. 91 at 3. The Court therefore includes this agreement in Appendix A, below.

V. DEFENDANTS’ MOTION TO STRIKE

Defendants’ Motion to Strike Portions of Dr. Ricketts’ Declaration in Support of Plaintiff’s Claim Constructions (Dkt. No. 65) challenges certain opinions of Plaintiff’s expert, Dr. David Rickett’s. *See* Dkt. No. 65-1, May 11, 2021 Ricketts Decl. at ¶¶ 18–22, 61, 75, 121 & 123. The opinions purportedly are directed to validity rather than claim construction. Because the parties have reached an agreed-upon construction for the term as to which Defendants moved

to strike certain opinions (*see* Section IV.5, above) and because the challenged opinions do not affect the Court's claim construction analysis, Defendants' motion to strike is denied as moot.²

VI. CONCLUSION

The Court adopts the constructions set forth in this opinion for the disputed terms of the patent-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

Defendants' Motion to Strike Portions of Dr. Ricketts' Declaration in Support of Plaintiff's Claim Constructions (Dkt. No. 65) is **DENIED AS MOOT**.

SIGNED this 4th day of August, 2021.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

² The mootness of this motion is further apparent in that the parties did not discuss this motion at the July 28, 2021 claim construction hearing.

APPENDIX A

<u>Term</u>	<u>Parties' Agreement</u>
<p>“configured” (passim)</p> <p>“aligned” (Claims 1 and 15)</p> <p>“couple(d)” (passim)</p> <p>“removable” (Claims 1 and 15)</p> <p>“transformer” (Claims 1 and 15)</p> <p>“a characteristic of said battery” (Claim 9)</p> <p>“a capacitor selected to produce substantially zero-current switching of said first switching circuit in said power train in conjunction with an inductor” (Claim 10)</p> <p>“duty cycle” (Claims 12 and 17)</p> <p>“a signal to couple an impedance across said first metallic coil to advance a zero-crossing of a current” (Claim 18)</p> <p>“configured to enable a voltage pulse to be applied across said first metallic coil” (Claim 19)</p> <p>“a wireless battery interface including a wireless battery interface magnetic core piecepart” (Claim 15)</p>	<p>No construction necessary; plain and ordinary meaning</p>

Dkt. No. 61 at 1–2; Dkt. No. 91 at 2–3.